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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 7-8, 10, 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Reischl et al ('095).
2. The rejection has been previously set forth on paragraph 2 of the office action mailed 9/23/2008, and is herein incorporated by reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafheutle et al (U.S. Patent 5,334,690) in view of Bagaglio et al (EP 0,358,328) and Ozawa et al (US PG Pub 2002/0176968).
4. The rejection has been previously set forth on paragraphs 3-6 of the office action mailed 9/23/2008, and is herein incorporated by reference.
5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reischl et al ('972) in view of Rhoades et al ('824).

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6. The rejection has been previously set forth on paragraphs 7 and 8 of the office action mailed 9/23/2008, and is herein incorporated by reference.

Response to Arguments

7. Applicant's arguments, filed 1/20/2009, with respect to the rejection of:

- a) Claims 7-8, 10, 12-13 as being anticipated by Reischl et al ('095).
- b) Claims 7-10, 12 and 13 as being unpatentable over Schafheutle et al (U.S. Patent 5,334,690) in view of Bagaglio et al (EP 0,358,328) and Ozawa et al (US PG Pub 2002/0176968), and
- c) Claim 9 as being unpatentable over Reischl et al ('972) in view of Rhoades et al ('824).

8. Have been fully considered but they are not persuasive.

9. **Regarding issue a):** Applicants argue the claimed invention is not anticipated by Reischl et al, there is not teaching to blend *two initially isolated* aqueous dispersions: the first comprising claimed (a) component and the second comprising the claimed (b) component.

10. In response, although Reischl et al is silent in teaching a method of blending *two initially isolated and solvent free* aqueous dispersions, claim 7 is not limited to such methodology.

Instead, it is merely requires a *blend* of solvent free polyether-polyurethane resin dispersion + polyester-polyurethane resin dispersion. Contrary to applicants' assertions, the language: "a blend of: (a) first... aqueous dispersion" and "(b) second... aqueous dispersion" fails to require each resin being *initially isolated* from one another – the scope of claim 7 is drawn to a *blend* of multiple dispersions (emphasis added).

11. Furthermore, if applicants maintain the language of claim 7 is sufficient to establish product-by-process limitations requiring a blend of *two isolated* dispersions – it should be noted that absent showing of criticality, process limitations in a product-by-process claim do **not** carry patentable weight. Therefore, the examiner maintains the blend of (a) and (b) satisfy claim 7.

12. Applicants also argue the coating disclosed by Reischl et al would inherently fail to act as a dye transfer layer based on sedimenting and redispersible properties – however, this position has not been supported by any type of factual data and appears to be an unsubstantiated opinion which is not persuasive.

13. **Regarding issue b):** Applicants argue the claimed invention is patentable over the prior art because one of ordinary skill would not be motivated to modify the polyether-polyester-polyurethane resin of Schafheutle et al into a blend of polyether polyurethane + polyester polyurethane based on the fact that:

- i) Bagaglio et al is drawn to the production of elastomers, i.e. fails to teach water dispersible polyurethane resin,
- ii) Ozawa et al fails to teach a blend of two distinct polyurethane resin dispersions, and
- iii) Paragraph 24 of Ozawa et al does not teach “an amount of polyether polyol relative to an amount of polyester polyol in the polyurethane backbone.

14. Regarding **i)** and **iii)** and contrary to applicants' assertions, Ozawa et al do in fact teach that the content of polyether relative to polyester controls the resulting feel of the polyurethane coating (emphasis added – see paragraphs 23 and 24 of Ozawa et al).

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15. Moreover, it is noted that Bagaglio et al fail to teach water-dispersible polyurethane resins, however it is still a relevant secondary teaching since it establishes how separate polyether polyurethane and polyester polyurethane increase the homogeneity of the resulting polyurethane. Furthermore, one of ordinary skill would be motivated to rely on Bagaglio et al in view of Ozawa et al, since Ozawa et al teach polyester and polyether each impart different properties in the final polyurethane, i.e. by synthesizing separate polyether and polyester polyurethane resins, the polyether and polyester blocks will be uniformly distributed through out the final polyurethane backbone – this ensures uniform distribution of material properties.

16. Concerning issue **ii)** it is noted that Ozawa et al fail to teach two distinct polyurethane dispersions, however, as previously discussed in paragraphs 9-12 of the instant rejection, this position is not commensurate in scope with claim 7.

17. **Regarding issue c):** Applicants argue claim 9 is patentable over the prior art because the relied upon layer of Rhoades et al is dye permeable – not dye receptive. While applicants' remarks have been noted, motivation to glean the relied upon cross-linking agent still exists since Rhoades et al teach it is suitable for cross-linking aqueous dispersions of polyurethane resin (the same methodology of Reischl et al), and said cross-linking agent produces coatings having excellent resistance to solvent, which are relevant in the final applications of Reischl et al, i.e. paint and lacquer (Reischl et al: col 7 lines 39-41).

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN J. GILLESPIE whose telephone number is (571)272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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